AMENDMENTS TO THE CLAIMS:

This list of claims replaces all prior versions or lists of claims in the application:

1.-27. (canceled)

28. (new) A process for the production of a composition containing an active substance or component, comprising the steps of charging a carrier molecule with one or more active substances or components and executing a sol/gel process the presence of the charged carrier molecule to form a gel matrix comprising the active substances or components.

29. (new) The process of claim 28, wherein the gel matrix is in the form of a film, covering, layer, or coating.

30. (new) The process of claim 28, wherein a sol/gel precursor is employed in the sol/gel process.

31. (new) The process of claim 28, wherein a porous sol/gel matrix is formed in the sol/gel process.

32. (new) The process of claim 28, wherein the sol/gel process is followed by a heat treatment for about 1 hour to about 24 hours, optionally under reduced pressure, at temperatures of about 20°C to about 100°C.

33. (new) The process of claim 32, wherein the heat treatment removes solvent or dispersant present and results in a porous sol/gel glass matrix.

34. (new) The process of claim 33, wherein the glass matrix is based on one or more polysilicic acids, silicates, borates and/or aluminates.

35. (new) The process of claim 28, wherein the carrier molecule has molecular cavities, voids, pores, or channels to accommodate the active substances or components.

36. (new) The process of claim 28, wherein the carrier molecule is an organic molecule.

37. (new) The process of claim 28, wherein the carrier molecule is selected from the group consisting of cyclodextrins, calixarenes, modified and/or activated forms thereof, and derivatives and mixtures thereof.

38. (new) The process of claim 37, wherein the cyclodextrins are selected from the group consisting of α-, β- and γ-cyclodextrins, modified and/or activated forms thereof, and derivatives and mixtures thereof.

39. (new) The process of claim 28, wherein the sol/gel process employs a sol/gel precursor comprising one or more gel-forming compounds of silicon, boron, aluminium, titanium, zirconium and/or vanadium.

40. (new) The process of claim 39, wherein the sol/gel precursor comprises one or more gel-forming compounds of silicon, boron, and/or aluminium.

41. (new) The process of claim 39, wherein the sol/gel precursor comprises one or more gel-forming organic silicon, boron and/or aluminium compounds.

42. (new) The process of claim 41, wherein the organic silicon, boron, and/or aluminium compounds are selected from the group consisting of di-, tri- and/or tetrafunctional silicic acid, boric acid and alumoesters.

43. (new) The process of claim 42, wherein the one or more gel-forming organic compounds comprise one or more alkoxysilanes and/or alkyl orthosilicates.

44. (new) The process of claim 43, wherein the alkoxysilanes comprise one or more compounds of the formula:

$$(R^1O)(R^2O)Si(X)(X')$$

in which

- X is hydrogen or a group $-OR^3$,
- X' is hydrogen or a group $-OR^4$ and
- R^1, R^2, R^3 and R^4 independently represent organic groups.

45. (new) The process of claim 44, wherein R^1, R^2, R^3 and R^4 independently represent linear or branched alkyl groups.

46. (new) The process of claim 45, wherein R^1, R^2, R^3 and R^4 independently represent (C_{1-12}) alkyl groups.

47. (new) The process of claim 42, wherein the silicic acid ester comprises tetramethyl orthosilicate (TMOS) or tetraethyl orthosilicate (TEOS).

48. (new) The process of claim 28, wherein the active substances or components are selected from the group consisting of perfumes, oils, essential oils, perfume oils, care oils, fragrance oils and silicone oils, antibacterial, antiviral, and fungicidal agents, disinfecting and antimicrobial substances, deodorants, antioxidants, pharmaceutically active substances, biologically active substances, biogenic agents, vitamins, vitamin complexes, enzymes, enzymatic systems, cosmetically active substances, detersive substances, inorganic and organic acids, soil repellents, soil release agents, oxidizing agents, bleaching agents, bleach activators, builders, co-builders, anti-redeposition additives, discoloration inhibitors, color protectors, laundry care substances and additives, optical brighteners, foam inhibitors, pH adjusters, pH buffers, UV protection factors, UV absorbers, fluorescing, and phosphorescing agents, dyes, dye compositions, pigments and other coloring substances, and mixtures thereof.

49. (new) A process for the production of a composition containing active substances and/or active components, comprising the following steps:

(a) charging a suitable carrier molecule with at least one active substance and/or active component;
(b) preparing a homogeneous mixture of the carrier molecule charged in step (a) with a suitable sol/gel

precursor, optionally in the presence of a suitable solvent or dispersant;

(c) carrying out a sol/gel process in the mixture prepared in step (b) to form a sol/gel matrix in which the carrier molecules charged with active substance and/or active component are incorporated;

(d) optionally heat-treating the sol/gel matrix formed in step (c) to remove any solvent or dispersant present.

50. (new) The process of claim 49, wherein the mixture prepared in step (b) and/or the sol/gel matrix produced in step (c) is processed to, or applied as, a film, covering, layer, and/or coating.

51. (new) The process of claim 49, wherein the mixture prepared in step (b) and/or the sol/gel matrix produced in step (c) is applied to an inert carrier surface.

52. (new) The process of claim 51, wherein the carrier surface coated with the sol/gel matrix containing the carrier molecules charged with active substances and/or components in incorporated form is subjected to a heat treatment to remove solvent or dispersant present, and to form a carrier surface coated with a sol/gel matrix comprising the carrier molecules charged with active substances and/or components in incorporated form.

53. (new) The process of claim 52, wherein the sol/gel matrix is porous.

54. (new) The process of claim 52, wherein the sol/gel

matrix is based on silicates, polysilicic acids, borates and/or aluminates.

55. (new) The process of claim 52, wherein the active substances and/or components are in uniform distribution throughout the matrix that coats the carrier surface.

56. (new) A film, covering, layer, and/or coating that comprises a porous sol/gel glass matrix based on one or more polysilicic acids, silicates, borates, and/or aluminates, the matrix having incorporated therein carrier molecules charged with one or more active substances and/or components.

57. (new) An inert carrier surface to which a film, covering, layer, and/or coating according to claim 56 has been applied.

58. (new) The surface of claim 57, having a protective and/or storage function for the active substances and/or components.

59. (new) The surface of claim 57, having a controlled release function for the active substances and/or components.

60. (new) A glass matrix based on one or more silicates, polysilicic acids, borates, and/or aluminates, the glass matrix being porous and having incorporated therein in uniform distribution carrier molecules charged with at least one active substance and/or component.